

SEQUENCE LISTING

<110> Gutteridge, Steve
Harvell, Leslie T.
Orozco, Buddy

<120> Plant Genes Encoding Pantothenate Synthetase

<130> BB1446 US NA

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<151> 2000-11-13

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 Val Ser Ala Ala Val Ala Ala Ser Ala Gly Pro Val Ala Val Val Val
 50 55 60
 Ser Ile Tyr Val Asn Pro Ser Gln Phe Ala Pro Thr Glu Asp Leu Ala
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<400> 6

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 <213> Glycine max

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 Arg Gln Leu Ser Asp Val Val Ala Val Ser Ile Tyr Val Asn Pro Gly
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 Gln Phe Ala Pro Thr Glu Asp Leu Ser Thr Tyr Pro Ser Asp Phe Asp
 65 70 75 80
 Gly Asp Val Lys Lys Leu Ala Ser Val Pro Gly Gly Val Asp Val Val
 85 90 95
 Phe His Pro Arg Asn Leu Tyr Asp Tyr Gly Lys Asn Gly Gly Gly Asp
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Val Ala Glu Ala Gly Gly Met Val Ser Cys Val Glu Ser Gly Ser Gly
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His Glu Ser Trp Val Arg Val Glu Lys Leu Glu Leu Gly Leu Cys Gly
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Lys Ser Arg Pro Val Phe Phe Arg Gly Val Ala Thr Val Val Thr Lys
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Leu Phe Asn Ile Val Glu Pro Asp Val Ala Val Phe Gly Lys Lys Asp
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Tyr Gln Gln Trp Arg Leu Ile Gln Arg Met Val Arg Asp Leu Asp Phe
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Ser Ile Lys Val Ile Gly Ala Glu Ile Thr Arg Asp Asn Asp Gly Leu
195 200 205

Ala Met Ser Ser Arg Asn Val His Leu Ser Pro Glu Glu Arg Glu Lys
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Ala Leu Ser Ile Asn Lys Ser Leu Leu Arg Ala Lys Ser Ala Ala Gly
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Asp Gly Gln Val His Cys Glu Lys Leu Thr Asn Leu Val Ile Gln Ser
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Val Thr Asp Ala Gly Gly Arg Ile Asp Tyr Ala Glu Ile Val Asp Gln
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Asn Asn Leu Glu Lys Val Glu Gln Ile Lys Ser Pro Val Val Phe Cys
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 <213> Tulipa fosteriana

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 Ser Leu His Ala Gly His Leu Ser Leu Ile Ser His Ala Ala Ser Leu
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 Ala Asp Leu Thr Val Val Ser Ile Tyr Leu Asn Pro Thr Gln Phe Ala
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 Pro Ser Glu Asp Leu Ala Thr Tyr Pro Ala Asp Leu Ala Ala Asp Leu
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 Arg Asn Leu Arg Ala Cys Pro Ser Val Ala Ala Val Phe Cys Pro Thr
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 Asn Pro Tyr Ala Asp Gly His Glu Thr Trp Val Arg Val Glu Glu Leu
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 Glu Arg Gly Leu Cys Gly Leu Ser Arg Pro Val Phe Phe Arg Gly Val
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 Ala Thr Val Val Ser Lys Leu Phe His Leu Val Glu Pro Asp Val Ala
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 Val Phe Gly Lys Lys Asp Phe Gln Gln Trp Arg Val Ile Glu Lys Met
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 Val Arg Asp Leu Asp Phe Pro Val Arg Ile Val Gly Ser Glu Ile Val
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 Arg Glu Val Asp Gly Leu Ala Met Ser Ser Arg Asn Val Arg Leu Thr
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 Pro Glu Glu Arg Glu Lys Ala Leu Ser Ile Ser Arg Ser Leu Ser Arg
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 Ala Lys Val Ala Ala Gln Asn Gly Ser Ser Ser Cys Gln Glu Leu Lys
 225 230 235 240

Asp Ile Ala Thr Gln Ser Ile Thr Glu Ala Gly Gly Arg Ile Asp Tyr
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Val Glu Ile Val Asp Gln Glu Ser Leu Lys Val Val Leu Asp Ile Thr
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Ile Asp Asn Met Glu Ile Thr Ile
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<210> 12
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<212> DNA
<213> Triticum aestivum

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<212> PRT
<213> Triticum aestivum

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Val Pro Thr Met Gly Phe Leu His Glu Gly His Leu Ser Leu Val Ser
35 40 45

Ala Ala Ala Ala Val Pro Gly Pro Val Ala Val Val Val Ser Ile Tyr
50 55 60

Val	Asn	Pro	Ser	Gln	Phe	Ala	Pro	Thr	Glu	Asp	Leu	Ala	Thr	Tyr	Pro
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Ser	Asp	Leu	Ala	Gly	Asp	Leu	Arg	Lys	Leu	Ala	Ser	Thr	Gly	Ala	Val
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Ser	Gly	Arg	Arg	Ala	Glu	Ala	Pro	Ala	Gly	Ala	Ala	Ala	Ser	Ser	Cys
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Val	Ala	Thr	Val	Val	Ala	Lys	Leu	Phe	Asn	Val	Val	Glu	Pro	Asp	Val
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Ala	Met	Phe	Gly	Lys	Lys	Asp	Tyr	Gln	Gln	Trp	Arg	Leu	Ile	Cys	Arg
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<210> 14

<211> 313

<212> PRT

<213> Oryza sativa

<400> 14

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35 40 45

His Ala Asp Leu Val Ala Val Ser Ile Tyr Val Asn Pro Gly Gln Phe
50 55 60

Ser Pro Thr Glu Asp Leu Ser Ala Tyr Pro Ser Asp Phe Gln Gly Asp
65 70 75 80

Leu Gln Lys Leu Met Ser Val Pro Gly Gly Val Asp Val Val Phe His
85 90 95

Pro His Asn Leu Tyr Asp Tyr Gly Gly Asp Gly Gly Asp Ala Val Ala
100 105 110

Glu Cys Gly Gly Asp Gly Val Val Ser Cys Val Asp Arg Arg Ser Gly
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Phe Gly His Glu Thr Trp Val Arg Ala Glu Lys Leu Glu Lys Pro Leu
130 135 140

Cys Gly Lys Ser Arg Pro Val Phe Phe Arg Gly Val Ala Thr Ile Val
145 150 155 160

Thr Lys Leu Phe Asn Ile Val Glu Pro Asp Val Ala Val Phe Gly Lys
165 170 175

Lys Asp Tyr Gln Gln Trp Lys Ile Ile Gln Arg Met Val Arg Asp Leu
180 185 190

Asp Phe Ser Ile Lys Val Ile Gly Ser Glu Val Ile Arg Glu Lys Asp
195 200 205

Gly Leu Ala Met Ser Ser Arg Asn Val Tyr Leu Ser Pro Glu Glu Arg
210 215 220

Glu Lys Ala Val Ser Ile Asn Lys Ser Leu Phe Arg Ala Lys Ser Ala
225 230 235 240

Ala Glu Asp Gly Gln Ile His Cys Glu Lys Leu Ile Asn Leu Val Val
245 250 255

Gln Ser Ile Thr Glu Ala Gly Gly Arg Ile Asp Tyr Ala Glu Ile Val
260 265 270

Asp Gln Asn Asn Leu Glu Lys Val Glu Trp Ile Lys Gly Pro Val Val
275 280 285

Phe Cys Val Ser Ala Trp Phe Gly Lys Ala Arg Leu Ile Asp Asn Ile
290 295 300

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2
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